

tired out from scrambling through the thick high grass under a tropical sun, I returned to the ship, greatly pleased with the opportunity I had enjoyed of becoming acquainted with the interesting bird-life of this out-of-the-way little island.

Roebuck Bay, N.W. Australia,
16th September, 1891.

XX.—*On the Birds of Madagascar, and their Connection with Native Folk-lore, Proverbs, and Superstitions.* By the Rev. JAMES SIBREE, Jr., F.R.G.S.*—Part V.

[Concluded from p. 119.]

VIII.—THE WILD-FOWL, PELICANS, SEA-BIRDS, DIVERS,
AND EXTINCT SPECIES.

WHEN speaking, in the last chapter, of the Waders, it was remarked that the physical conditions of Madagascar rendered it well fitted to be a home of that Order of birds; and this is equally true of the next Order, according to Dr. R. Bowdler Sharpe's classification, that of the Wild-fowl. As will be seen by the tabular List (p. 270), there are ten species of Wild Ducks, Dwarf Geese, Diving Ducks, Teal, and Tree-Ducks living in this island, and these find appropriate conditions for their existence, as well as abundant food, in the numerous marshes and the many small lakes and meres found all over the country, as well as in the extensive lagoons of the eastern coast. Two of these Wild-fowl are peculiar species, but the rest belong to widely-spread kinds.

In some parts of the island the Wild Ducks are found in vast numbers, especially in the immense swamps which cover the greater part of the level country in the Antsihanaka province. These mark the former extension of a great lake, which in ancient times covered the whole valley, and of which the present Lake Alaotra is the still slowly diminishing remnant. In a journey round the north-western portion of the

* Reprinted from the 'Antananarivo Annual,' 1891, with additions and corrections by the Author.

province in the year 1874, I was much astonished at the immense numbers of Water-fowl we saw in every direction. Large clouds of them flew overhead as we crossed the marshy tracts, almost darkening the air.

An intelligent native who lived for three or four years in Antsilànaka thus describes the bird-life of the Alaotra and its neighbourhood :—

“The birds,” he says, “are exceedingly numerous, but those which go in the largest flocks are the *Tahà* (a Tree-Duck) and the *Tsiriry* (an allied species). These are found in great abundance and go in flocks of from three to four hundred; so that at evening, when they settle down along the shore, one cannot walk by the water-side, for the ground is black with them. Next to these in numbers are the birds called *Vórontsàra* (a species of Dwarf Goose) and *Sàdakèly* (a kind of Duck). These also go in flocks, but in smaller numbers, from twenty to thirty together. There are also other birds which go in flocks, but do not always remain on the lake, visiting it only in the summer and autumn; these are called *Sàma* (a species of Flamingo). The *Sàma* is a white bird, of beautiful plumage, tinged with light-pink shades. It is nearly twice the size of a Heron and stands much higher; it is found in lines along the shore, like a file of soldiers, and there it seeks its food. There are also many other birds on the Alaotra, such as the *Aròsy*, the *Fàralàm-botra*, and the *Angàka* (all species of Duck), the *Otrika* (a Coot), the *Talèvana* (a Blue Waterhen), the *Vòrombè-mainty* (a Heron), the *Famàkisifotra* (an Ibis), the *Miòmbonkòmana*, the *Virỳ* (Lesser Grebe), and the *Kitànotàno* (the name both of a Snipe and a Curlew). The bird called *Miòmbonkòmana*, when feeding, covers up its head with both wings until it has finished.”

Of the *Tsiriry* Tree-Duck (*Dendrocygna viduata*), which is common also to Tropical America and to Africa, M. Pollen says that “it is extremely plentiful in Madagascar, the Comoros, and the smaller neighbouring islands. At Anórontsànga I have seen a flock of a hundred of these Ducks on the sea-shore among other crowds of aquatic birds. They are very difficult

to take by surprise, for they swim and dive with great swiftness, and their flight is extremely rapid. Their piercing and whistling cry, uttered constantly when flying, consists of the syllables *pyswy, pyswy*. They attach themselves quickly to the places where they are fed; for instance, those kept in the Acclimatization Gardens at St. Denis, Réunion, are perfectly free, and do not fail to repair every evening to the sea-shore, yet they return every morning to the ponds where they are fed." This bird builds its nest on the hills among the grass, and the young are taken to the water as soon as hatched.

The Dwarf Goose, says M. Pollen, has a heavy flight, with none of the rapidity of the other Wild-fowl; but it is an excellent swimmer and diver, remaining all day on the water, except during the great heat, when it perches on the trees. These birds are extremely shy, and when alarmed dive immediately, only to reappear at a considerable distance, so that it is very difficult to catch them. Of this bird, however, Mr. Cory remarks: "Of all the Ducks I know, it is the hardest to shoot, on account of the pace at which it flies." And Mr. W. Wilson also says: "I always thought their flight was rapid, anyhow they are very difficult to shoot. This bird, apparently known elsewhere as *Vórontsàra* ('Handsome-bird'), is more often called at Itàsy *Tùtatsiry*, and in Imèrina *Vòronandràna* ('Royal-bird'), this latter name being probably given on account of the gorgeous markings on the neck and body of the bird."

Mr. Wilson says: "The *Tsiriry* is certainly the commonest water-bird. On the marshes and ponds near Mánandàza I have seen as many as 500 together. Probably from the swarms of this bird in that district arises its name of *Bètisiriry* ('Many-Tsiriry')."

Mr. Wilson also remarks: "The *Fàralàmboitra*, or Red-billed Wild Duck, which is perhaps the most tender of all the Ducks for eating, is sometimes termed the *Sùdakèly*, but more probably from ignorance than anything else. This bird is specially sought after round Antanànarivo for the Queen's table. All Her Majesty's birds must be shot with

small slugs of *iron wire*, and not with lead, lest by accident a little lead swallowed should lead to lead-poisoning ! ”

Mr. Cowan mentions that the numerous meres in the valley of Ihòsy (Ibàra) are the favourite haunts of Herons, Ducks, Grebes, and Rails. In an interesting paper by Mr. Baron in the ‘Annual,’ vi. p. 92, he has given a list of no less than thirty-four aquatic birds (by their native names) found on the Alaotra lake in Antsilànaka; of these nearly half are still undescribed and cannot at present be identified. In the little museum at the L. M. S. College at Antanànarivo there is, among other Malagasy birds’ eggs, a series of fifteen eggs from Antsilànaka, chiefly of Water-fowl on the Alaotra.

As for the native names of these Wild-fowl, many of them seem to be imitative of their screaming cry, as *Angàka* and *Akàky* (Meller’s Duck), *Rahàky* (Red-billed Duck), *Vóron-kóika* (Dwarf Goose), and *Tsiriry* and *Vivỳ*. Other names refer to their appearance, as *Fòtsièlatra*, “White Wings” (Red-billed Duck)*; *Vórontsàra*, “Handsome-bird” (Dwarf Goose), which is also called *Màroampinga*, “Many Shields,” and *Sóafify*, “Handsome-checks” (?) (this latter is also a name of the Hottentot Teal); and *Mahèrilóha*, “Strong-headed” (a Diving Duck). Some names of the Red Wild Duck seem to refer to its apparently bare appearance, for one means “Moulting” and another “Plucked.” Many other names are obscure, at least with our present knowledge of provincial Malagasy.

Before concluding this section I will add the following note, kindly given me by Mr. W. Wilson :—

“One of the smaller Ducks which frequent Lake Itàsy is known by the Queen’s gamekeepers near Antanànarivo as the *Tafiotra*, but at Itàsy it goes by the name of *Andràndra* [it is probably the *Thalassornis leuconota*]. It is a rather small Duck, of a reddish-brown colour, somewhat mottled with black on the breast, with a funny ‘dumpy’ appearance. It is not difficult to procure. The natives tell me that the female bird

* Mr. W. Wilson says: “The name of *Fòtsièlatra* is at Itàsy confined to the small Duck which is known as the *K’intokèly* or *Sàdakèly*, but never given to any other, to my knowledge.”

experiences some difficulty in the laying of her eggs, which are very large in proportion to the size of her body. Indeed, the passage of the egg is said to make the bird faint and become unconscious (*tòrana*). If found just at this time she may be taken off her nest with the hand. On account of this peculiarity this bird is *fàdy*, or tabooed, by all native women, who think that they would experience a similar difficulty in child-birth were they to eat the bird."

Mr. Mackay also says: "The *Tafiotra* lays the largest egg of any fowl on the Alaotra. It is generally known as the *Adàladàla* ('Foolish one'), as it does not fly away until one is very near it, and it is consequently very easily shot. They are generally fat and plump and very good eating (our own experience). General report says that it is *tòrana* (faint) when laying its eggs. One man, however, denied this to me with some vehemence."

The three families of the ninth Order of birds, including the Frigate-birds, Tropic-birds, and Pelicans proper, are all represented in Madagascar, although, the first two of these being oceanic birds, it might be more correct to say *around* the great island.

Little seems to have been observed in Madagascar of the two species of Tropic-bird. In habits and appearance they probably do not differ from the other species of this widely-spread oceanic bird. No native name, so far as at present known, has been given either to them or to the Frigate-bird.

The third family of this Order includes one Pelican, one Darter, one Cormorant, and a Gannet.

The African Cormorant is frequently seen on the rivers of the west coast, perched on the dead branches of the trees on the river banks. Here it watches the surface of the water, darting down like an arrow on any fish that may appear. It is not at all shy, and so can easily be approached near enough to be shot. But it is quite different when the bird is on the water, for it swims and dives rapidly, remaining a long time under the surface. The Sàkalava give this bird the name of *Rénivoàÿ*, i. e. "Mother (or Guardian)-of-Crocodiles," for

they insist that it acts as a sentinel for these reptiles. They say that when one of the birds is seen perched on a tree by the river, one is certain to see, not far off, a number of crocodiles. Other and similar names for this bird are *Sakai-zamboàÿ*, "Crocodiles'-friend"; and *Aron dóry*, "Guardian-of-the-enemy," i. e. the crocodile, *the enemy par excellence*, and the most feared of all the living creatures in the island. It is also termed *Vórompisáky*, which probably means the "Bird-that-takes(pre)-from-the-water"; and *Faméfakangàty*, "Shell-breaker"*.

As to the Darter, it is a curious fact that the Madagascar species is the same as that found in India, and is different from that of Africa (*Plotus levaillanti*), an example of Oriental affinities of which the Malagasy avifauna furnishes so many illustrations. In habits, food, and habitat the Darter resembles the Cormorant already described, except that it is more shy, is swifter in flight, and dives more adroitly. It also shares the name of *Rénivoàÿ* with its cousin. As described in their English name, the Darters have remarkably long and flexible necks, with which they dart upon their funny prey. They usually sit solitarily, with the neck bent into the shape of an S, but there are always some others not far off. On getting a fish the Darters throw it up into the air and catch it by the head, which is devoured first.

In the previous chapter, when treating of the Ibises, it was noticed that the word *Manàrana* appears to be a generic name applied to several different species. Mr. W. Wilson remarks:—

"I have never known this name applied to any other bird but the Cormorant; certainly, at Itàÿ and in the whole of the district 20 miles round the lake, the name is given only to this one bird, which sits all day long on some convenient rock or branch of an overhanging tree, watching for the small fishes, which are always abundant in the shallower parts of the lake. These birds and their cousins, the Snake-necks, or Darters, always throw the fishes they

* The *Angàty* is a black spiral freshwater shell, *Melanatria johnsoni*, E. A. Smith, P. Z. S. 1882, p. 383.

catch high up into the air, in order to 'bolt' them head foremost. The Cormorant is a regular 'gorger' (hence probably its name) and is easily shot, being seldom found with a partially empty stomach. It is not difficult to rear it in captivity, but it lives exclusively on fish."

As to the Gannet, M. Grandidier says that it is seen in parties of from eight to ten birds, fishing together; but it is often attacked by the Lesser Frigate-bird and compelled to disgorge its prey for the benefit of the more powerful bird. These Gannets make their nests and rear their young in all the smaller islands of the neighbouring seas.

Although in the last-mentioned Order there are, as we have seen, several species of oceanic birds, the tenth Order, according to Dr. R. B. Sharpe's classification, is that of Sea-birds proper, and includes nearly a score of widely-spread and powerfully-winged species belonging to the Terns, the Noddies, the Gulls, and the Petrels. Of these little need be here said, because, in the first place, not much has been noted with respect to their habits; and also because there is little, if anything, in which they differ from the Sea-birds which are found all over the world, and which have been described in so many books of travel and natural history.

The Roseate Tern is said to be very common on the islets and shoals of Cargados in the Indian Ocean; the Greater Tern is found in great numbers in the smaller islands, as Aldabra, Tromelin, Juan da Nova, and others; the Panayan Tern appears to be very rare in Madagascar waters; while the Noddy is said to come by thousands to roost in the cliffs and rocks of Réunion at certain seasons. Mr. Cory informs me that "one of the Terns (grey, with a black head and coral feet and bill) is very common in Imèrina. There are great numbers even in a pond close to Ambóhimànga, where I have shot them." It is also very common all round Itasy, a lake nearly in the centre of Madagascar (150 miles from the sea), where it is known by the name of *Kaonkaona*, a word which means a howl, yelp, or cry. All these birds are known by the Sàkalàva under the general name of *Sambè*.

which M. Pollen affirms to be the same as the Malagasy word *sàmbo* (ship), and refers to their being seen, like ships, far out at sea. I am, however, rather disposed to think that the two words are *not* identical, but I have no other solution to offer.

As will be seen by the tabular List (p. 272), about a dozen Gulls and nine species of Petrel have been met with in the seas surrounding Madagascar, but it is difficult to give their exact number and names without a much more intimate knowledge of the coast-line of the whole island than is yet available to naturalists. The Dusky-headed Gull is found not only on the coast, but far in the interior, as on the Lake Alaotra in Antsihànaka and the River Mangóky. Another Gull has been shot in the neighbourhood of Antanànarivo. The common name for the Gulls which visit Itàsy is *Hòlo-kòloka*, descriptive, say some, of the peculiar cry they utter, although it may be descriptive of their habits, as it means "crafty, trickish, guileful."

The last Order of birds, that of the Divers, will not detain us even so long as the one just noticed, as it only contains one species found in Madagascar. This is a form of Lesser Grebe, or Dabchick, which appears to be almost identical with the bird found over Europe, Africa, and part of Asia. It is very common wherever there are pools or any piece of fresh water, where it may be seen swimming, diving down at any alarm, to reappear in a minute or two at a considerable distance. It is known to the Malagasy by the name of *Vivỳ*, which is probably imitative of its plaintive little cry. (*Dendrocygna viduata* is also known by this name in the north-west of the island.) This Grebe is also called *Fòrombòatàvo*, i. e. "Gourd-bird," but why I cannot say.

Our review of the birds indigenous to Madagascar, and still to be found throughout its forests and plains and its rivers and sea-coasts, is now completed; but a few words may be added as to two or three species of birds now extinct,

but which, at no very distant period, scoured its plains, and must have been very prominent and striking members of its avifauna.

It was in the year 1850 that a very large bird's egg and some fragments of bones were first discovered by a M. Abadie in the southern part of Madagascar, and excited great interest among naturalists. Subsequently other eggs were found, and in 1868 M. Grandidier discovered in the marshy soil at Ambólintsàtrana, on the west coast of Madagascar, the tibia, femur, toe-bones, and some vertebræ of a bird, corresponding in size with the fragments previously obtained, and evidently, from their proximity, belonging to the bird which laid these great eggs. It became clear from the shape and structure of these portions of the skeleton that they were parts of a bird allied to the Ostrich, and still more nearly to the Moa or Dinornis of New Zealand. The egg is remarkable as far exceeding in size any previously known egg, for the longer axis is no less than $12\frac{1}{4}$ inches, with a smaller axis of $9\frac{3}{8}$ inches; while the size of the largest known Ostrich egg is only $6\frac{1}{8}$ inches by 5 inches. In capacity this Madagascar egg is therefore equal to six Ostrich eggs and to 150 average-sized Hen's eggs. This egg, however, does not appear to have been laid by the largest of known *birds*, living or extinct, for the leg- and toe-bones are not so long as those of the New-Zealand bird, which was, so far as our present information goes, the most gigantic of all feathered creatures*.

This Madagascar bird, which was named by Isidore Geoffroy Saint-Hilaire *Aepyornis*, appears to have been about as large as the largest Ostrich, but with extremely massive leg- and toe-bones, so that it was probably endowed with great speed on foot, but, like all the Struthionæ, would be incapable of flight. No complete skeleton has yet been discovered, and we still know nothing of the form of the cranium and of the vertebræ of the neck. Enough, however, has been ascertained from the other bones to enable it to be said that the *Aepyornis*

* So far as the evidence at present available allows us to judge, the Madagascar bird did not exceed 6 ft. 6 in. in height, while the Moas varied from 8 ft. 2 in. to 9 ft. 10 in.

Tabular List of Madagascar Birds.

(TABLE VI.)

English Name.	Scientific Name.	Hova or General Name.	Provincial Malagasy Names.
Meller's Wild Duck	<i>Anas MELLERI</i> *.	Angàka.	Akakamainty (Bs.), Akaky (T).
Red-billed Wild Duck	<i>Anas erythrorhyncha</i> .	Fotsielatra.	Rahaky, Sadakely, Faralam-botra, Filamatra, Lovilovy
Bernier's Wild Duck	<i>Anas BERNIERI</i>.	.....	Haké (T, N.B.).
Dwarf Goose	<i>Nettion unguis</i> .	Tatatsiry, Vorondriana.	Maroampinga (Ba.), Soafy (So.), Voronkoika, Voron-tsara (Bm.).
Widowed Tree-Duck	<i>Dendrocygna viduata</i> .	Tsiriy; and so also in many dialects.	Vivý (N.S.).
Larger Tree-Duck	<i>Dendrocygna major</i> .	Tahia (T, N.B.).	Itsoa (So).
African Humped Duck	<i>Sarcidionyx africana</i> .	Arosy, Ara.	Angongo (Bs., T), Ongongo (Ba.), Sivongo (N.S.), Kaboka, Kavoko, Rasana (So).

Family ANATIDÆ. (Ducks.)

Order VIII. ANSERES. (WILD-POWL.)

White-eyed Duck	<i>Fuligula nyroca.</i>	.....
White-backed Diving Duckt. .	<i>Thalassornis leucnota.</i>	Tafitotra, Andràndra, Belôha.
Hottentot Teal.....	<i>Querquedula hottentota.</i>	Sàdakeky, Kintokely, Fôsisiè- lutra.
		Ony, Onotra (<i>Bm.</i>), Hôñjo (<i>Sth.</i>), Mahèritôha (<i>N.S.</i>), Ménamô- lotra (<i>N.B.</i>), Pannahona, Ta- fototra, Adaladala (<i>Sth.</i>), Soafity (<i>N.S.</i>), Tātaka (<i>So.</i>), Rasasa (<i>N.B.</i>), Kizazaka (<i>Sth.</i>).

Order IX. STEGANOPODES. (PELICANS.)

Family FRIGATIDÆ. (FRIGATE-BIRDS.)

Lesser Frigate-bird..... *Fregata minor.*

Family PHAETHONTIDÆ. (TROPIC-BIRDS.)

White Tropic-bird..... *Phaethon candidus.*
Red-tailed Tropic-bird..... *Phaethon rubricauda.*

* As in the first part of this paper (*Ibis*, 1891, p. 202), the names in small capitals show the genera and species of birds peculiar to Madagascar. The initials and contracted words in the last column are substitutes for the names of the different Malagasy tribes: see *Ibis*, 1891, p. 203.

† This name, a translation of the scientific one, is apparently a misnomer, for Mr. Cory says, "It has not a white back, and I have not seen a white-backed Duck in the island."

(TABLE VI., continued.)

English Name.	Scientific Name.	Hova or General Name.	Provincial Malagasy Names.
Red-backed Pelican.....	<i>Pelecanus rufescens.</i>	.....	.....
Booby Gannet.....	<i>Sula piscator.</i>	.....	.....
Black-bellied Darter.....	<i>Plotus melanogaster.</i>	.....	.....
African Cormorant.....	<i>Phalacrocorax africanus.</i>	.....	.....

Family PELICANIDÆ. (PELICANS.)

Manakana, Fitindrona, Trô-

zona.
Arondôy.

Ramangatra (Bs., Ba., T.,
Tr.), Rénivôay (N.S.), Fa-
vorompisakay (Bs., Ba.), Ra-
makangaty, Ramangavia
(T.), Rénivôay (N.S., N.B.),
Sakazambôay, Vorombôay
(So.).

Order X. GAVIÆ. (SEA-BIRDS.)
Family LARIDÆ. (GULLS.)

Caspian Tern.....	<i>Sterna caspia.</i>	.....	Sambê.
Greater Tern.....	<i>Sterna macrura.</i>	.....	Sambê.
Horsfield's Tern.....	<i>Sterna media.</i>	.....	Sambê.
Roseate Tern.....	<i>Sterna dougalli.</i>	.....	Sambê.
Panayan Tern.....	<i>Sterna anastheta.</i>	.....	Sambê.
Hybrid Tern.....	<i>Ilydrochelidon hybridæ.</i>	.....	Sambê.

White Noddy	<i>Gygis candida.</i>	.....	Sambè.
Thin-billed Noddy	<i>Anous tenuirostris.</i>	.....	Sambè.
Stupid Noddy	<i>Anous stolidus.</i>	.....	Sambè.
Dusky-headed Gull	<i>Larus phæocephalus.</i>	.....	Hòlokòloka.
Antarctic Skua	<i>Stercorarius antarcticus.</i>		Hòlokòloka.

Family DROMATIDÆ. (CRAB-POVERS.)

Crab-Plover	<i>Dromas ardeola.</i>		Hòlokòloka.
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Family PROCELLARIIDÆ. (PETRELS.)

Sooty Petrel	<i>Procellaria fuliginosa.</i>		
Giant Petrel	<i>Ossifraga gigantea.</i>		
Blue Petrel	<i>Prion vittata.</i>	.....	.....
Black-bellied Petrel	<i>Fregatta melanogastra.</i>	.....	.....
Oceanic Petrel	<i>Oceanites oceanicus.</i>	.....	.....
Green-billed Albatross	<i>Diomedea chlororhyncha.</i>	.....	.....
Black-browed Albatross	<i>Diomedea melanophrys.</i>	.....	.....
Green-billed Shearwater	<i>Puffinus chlororhynchus.</i>	.....	.....
Dusky Shearwater	<i>Puffinus obscurus.</i>	.....	.....

Order XI. PYGPODES. (DIVERS.)

Family PODICIPITIDÆ. (GREBES.)

Pelzel's Grebe	<i>Tachybates fluviatilis</i> PEL- ZELNI.	Vivỳ, and so in most other dialects.	Vòrombòatàvo (T.).
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maximus was allied to the *Dinornis* and the *Apteryx*, "although it is distinguished from them by profound differences of internal organization, amongst others by the presence of highly developed air-passages, which allowed the air to penetrate into the thigh-bones."

M. Grandidier also discovered the bones of two other and smaller species of *Æpyornis*, one of the height of a Cassowary, and the other as large as a Bustard, so that it is probable that there were several species of this ancient genus formerly living in Madagascar. Most of the eggs of the largest species have been found in a small district in the extreme south-east corner of the island, between the River Mandrèry and a promontory called Andrahòmby. In this neighbourhood fragments of the eggs are said to be easily obtained, but perfect eggs are very rare and command a large price in Europe. Another specimen, described by Mr. G. Rowley, was found at Mānanjàra, on the south-east coast, at a depth of 45 feet, in a hill of ferruginous clay, by some natives who were digging for iron-ore. As these remains have thus been discovered at three different points on the southern coast of Madagascar, there can be little doubt that systematic exploration would reveal much more numerous relics of this big bird as well as of its eggs.

It is not at present possible to say exactly at what period these great Malagasy birds became extinct, but M. Grandidier believes that they were existing at a very recent epoch, since their remains are found in the newest formations, and that therefore they have been living during the period since man has inhabited Madagascar.

— XXI.—*Notes on the Caprimulgidæ.* By ERNST HARTERT.

(Plate VI.)

ALTHOUGH the Cypselidæ and Caprimulgidæ are, in my opinion, somewhat allied families, and, in a systematic arrangement, should be placed near together, there can hardly be found a greater difference than in the dull and